

## Supplementary Materials: Chemical Solution Deposition of YBCO Films with Gd Excess

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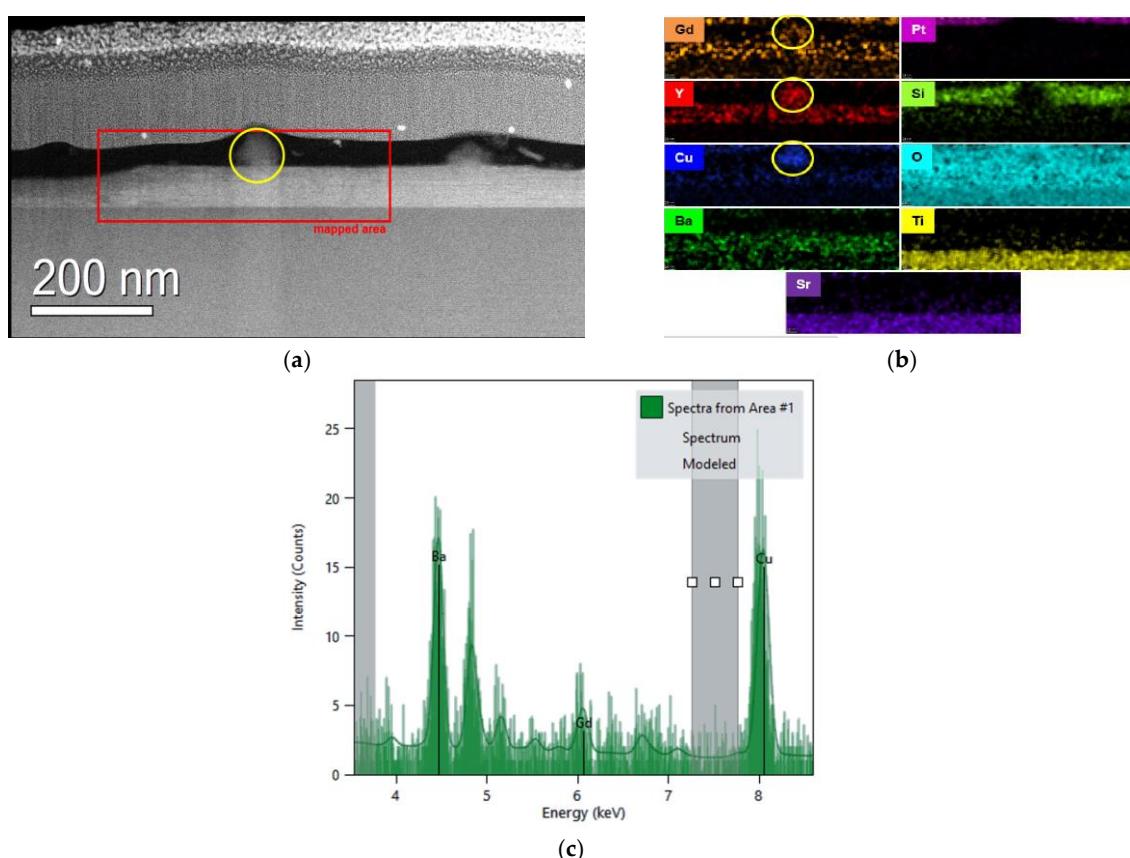
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**Figure S1.** TEM overview of YBCO-Gd 5% film deposited with standard process. Cross-section view: HAADF STEM image showing the mapped area together with elemental Y, Gd, Ba, and Cu EDX maps confirming a uniform Y and Gd distribution. (a) HAADF STEM overview of YBCO-Gd 5% film deposited by standard process YBCO layer morphology. The  $(\text{Gd}, \text{Y})_2\text{Cu}_2\text{O}_5$  precipitate is highlighted by yellow circle. The area of EDX mapping is shown by red rectangle (b) elemental Gd, Pt, Y, Si, Cu, O, Ba, Ti and Sr EDX maps confirm a uniform Y and Gd distribution. (c) EDX spectrum from YBCO layer area proofs Gd presence in the layer.



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